Fig.1

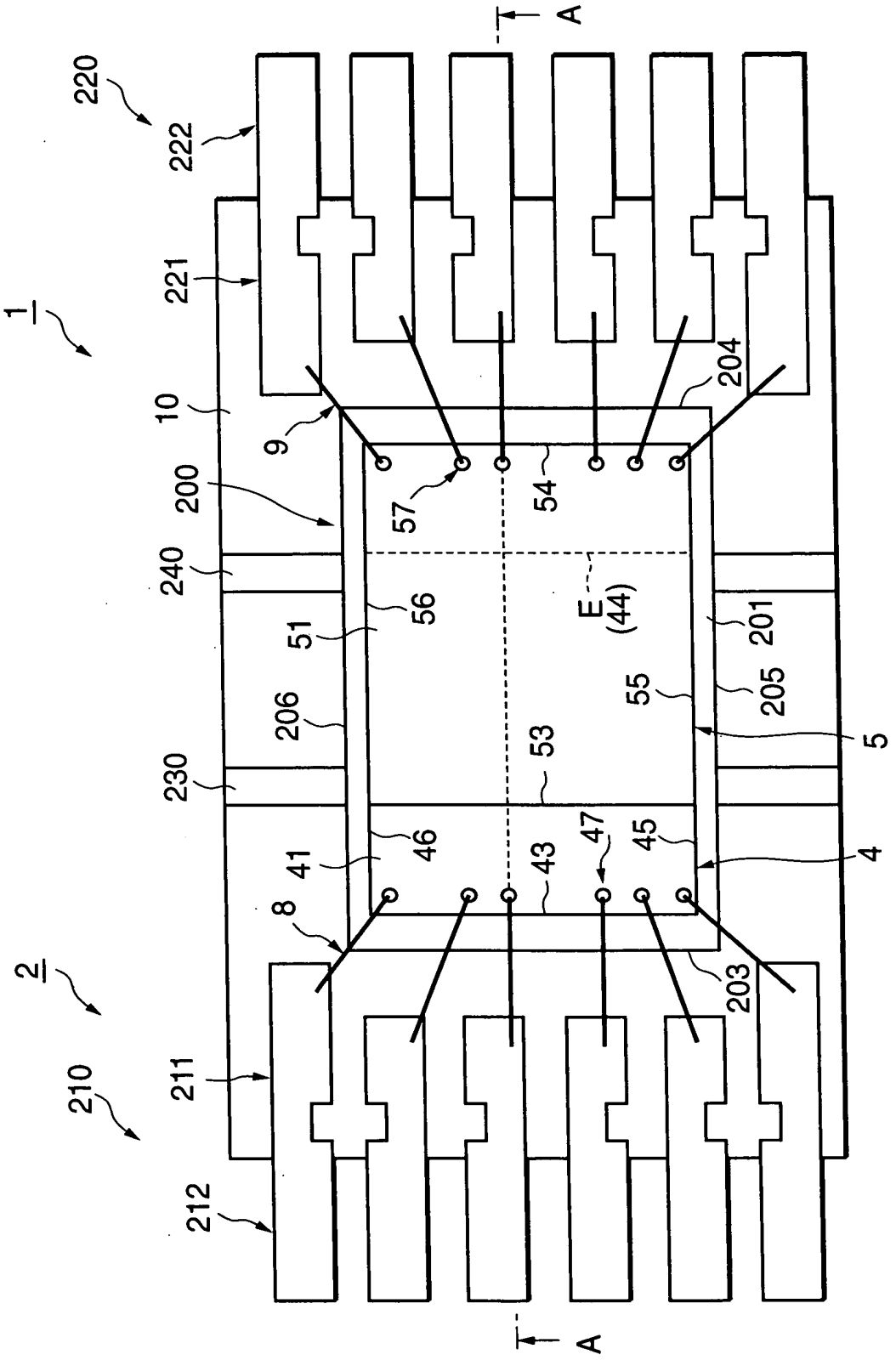
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Fig.2

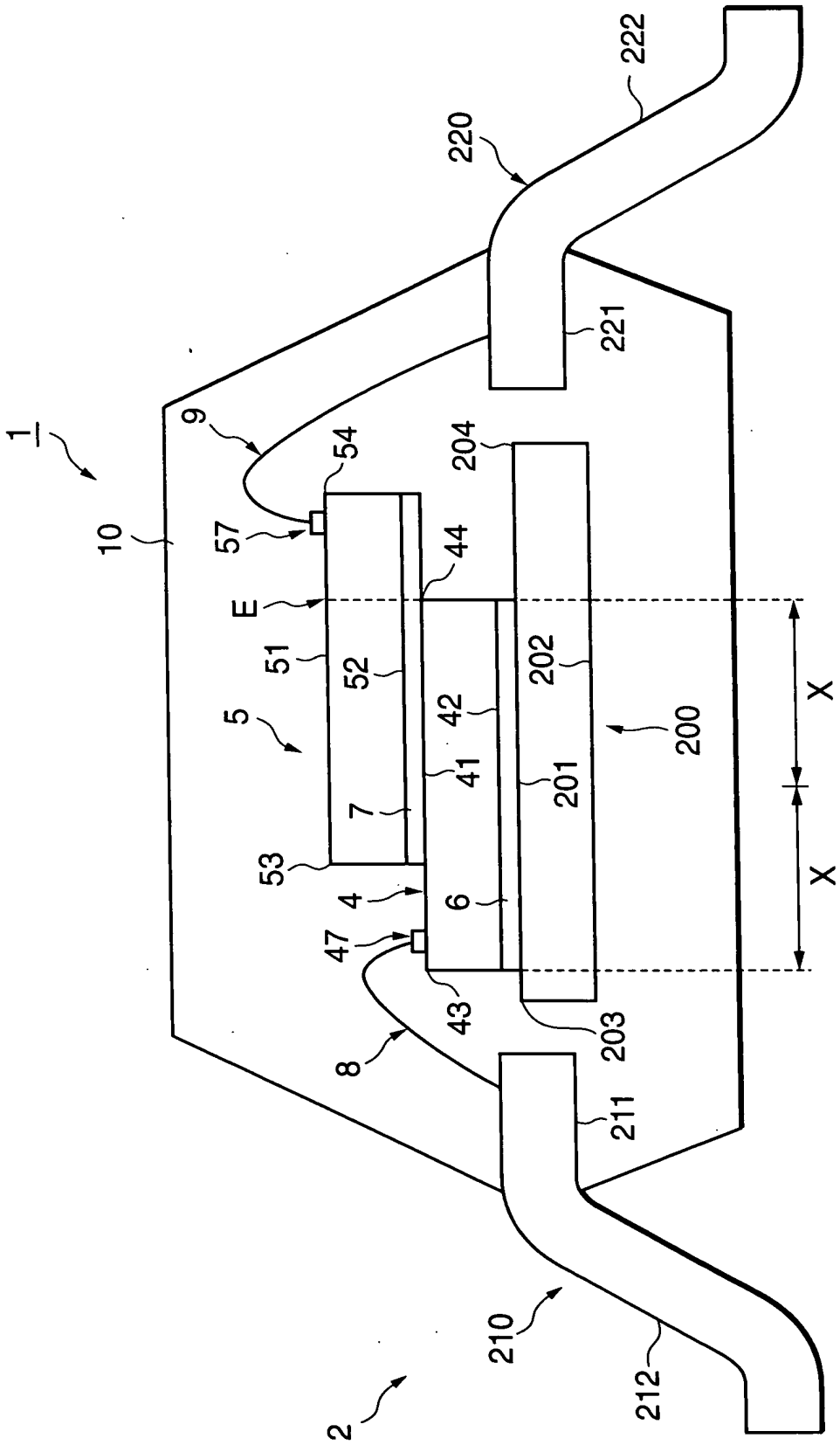
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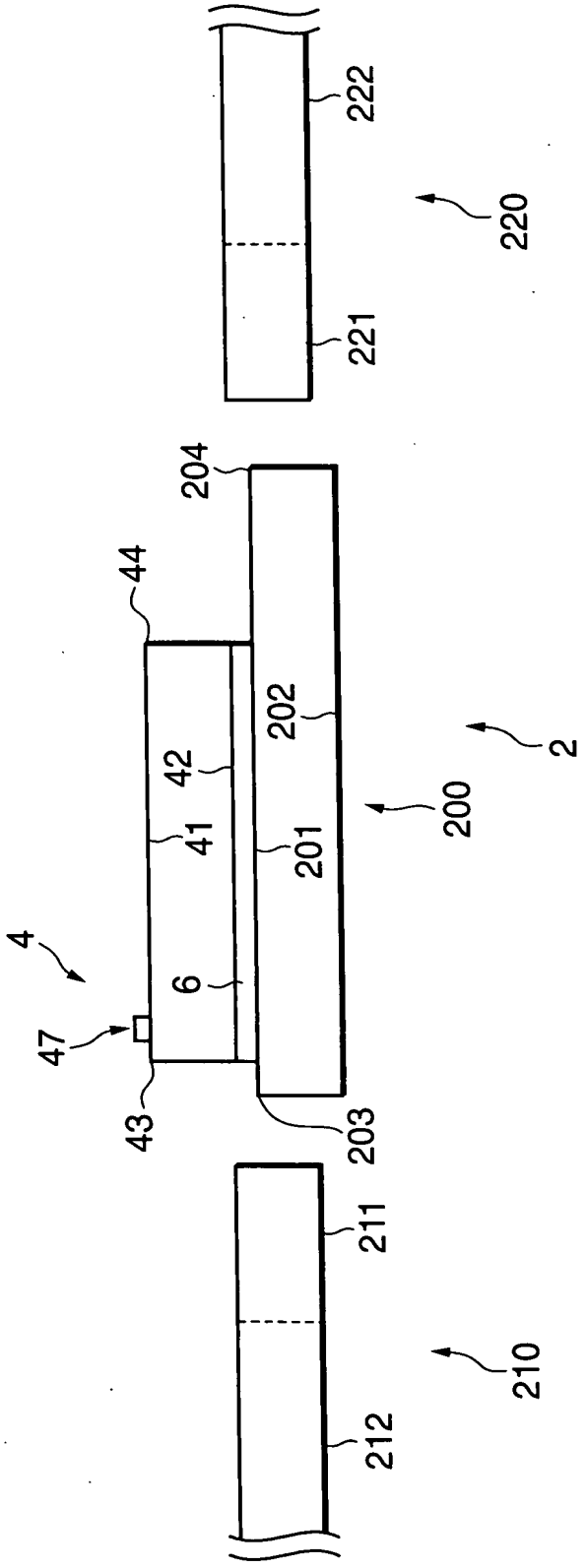
Fig.3



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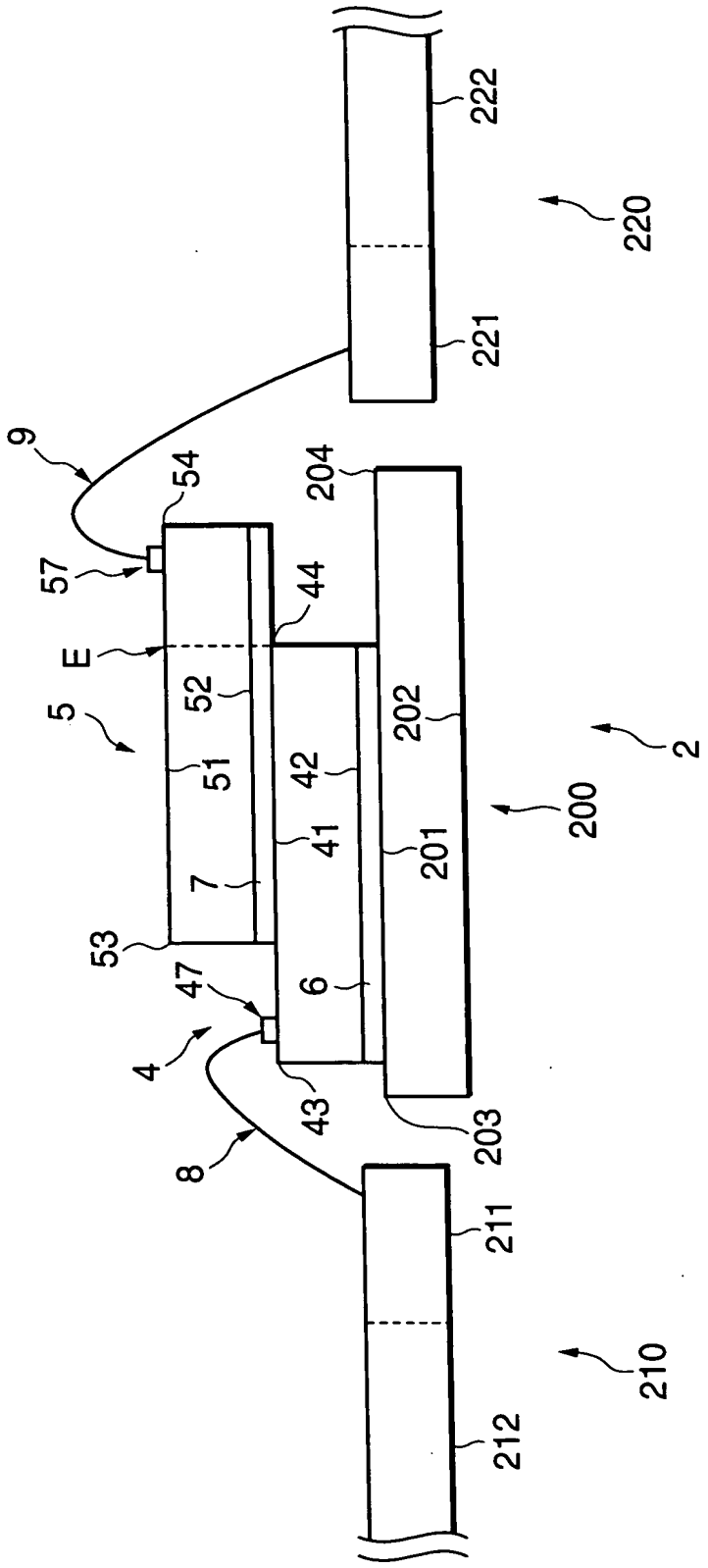
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Fig.5

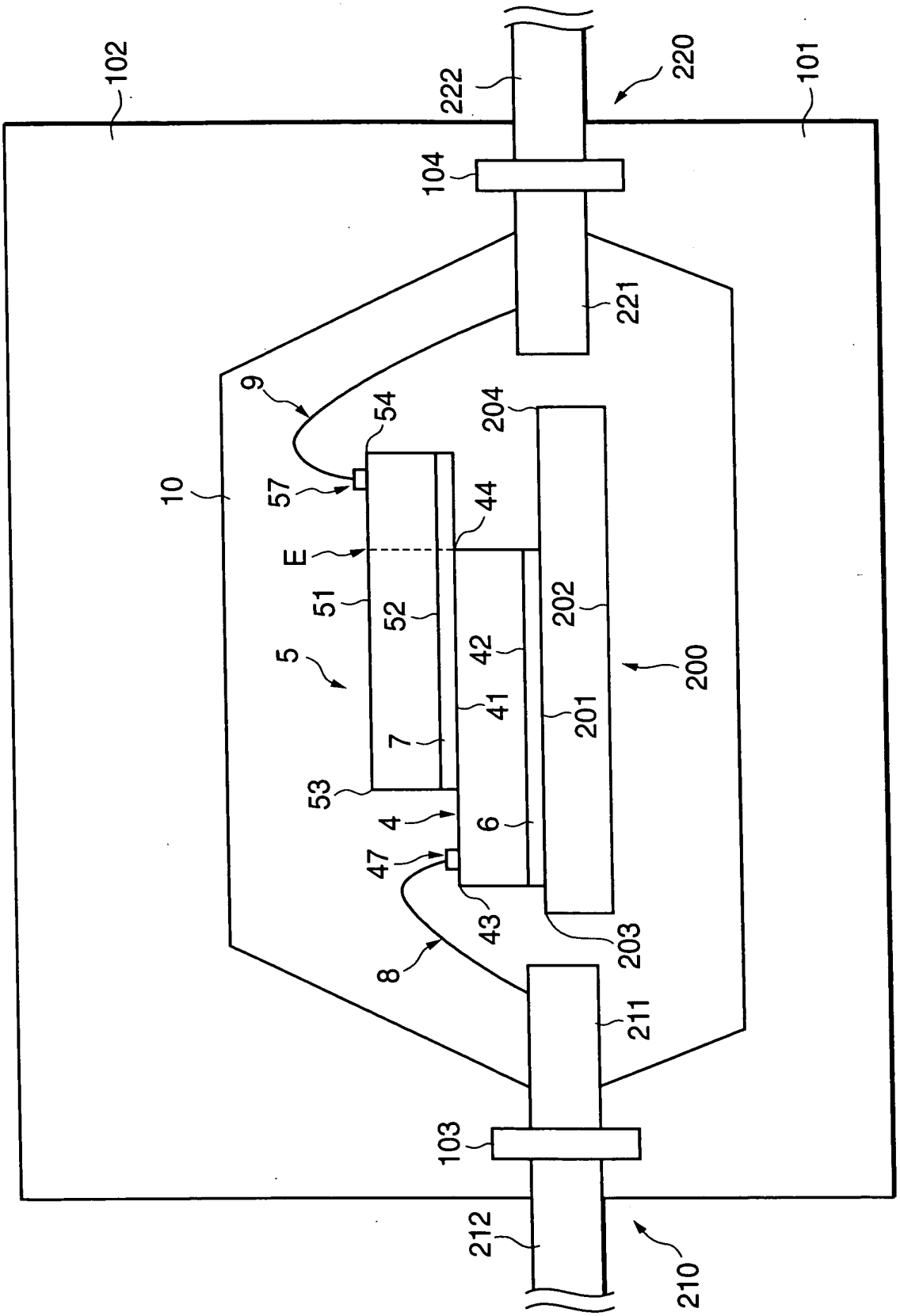
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Fig.6

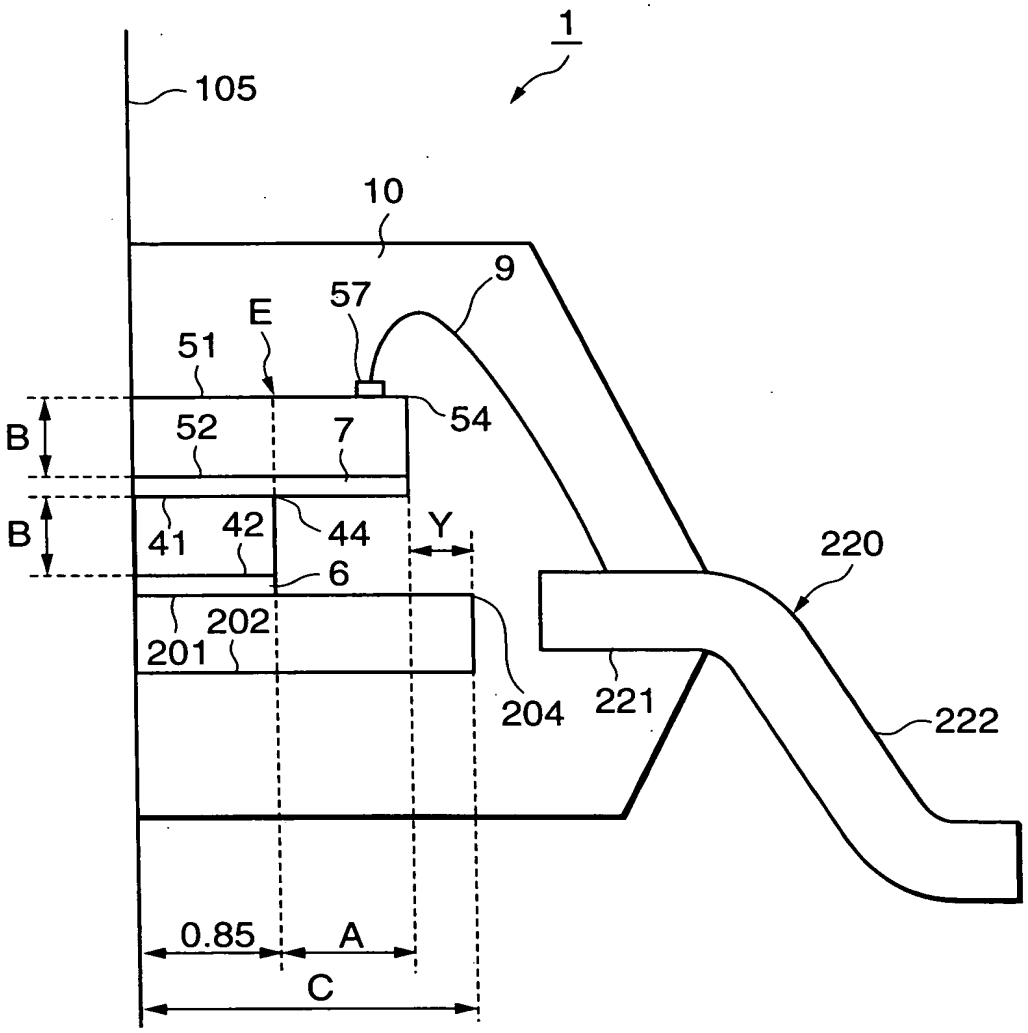
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Fig.7(a)

MATERIAL	ELASTIC MODULUS (kg/mm^2)	POISSON'S RATIO
BASE MATERIAL OF SEMICONDUCTOR CHIPS	17335	0.07
LEAD FRAME	14800	0.3
RESIN ENCAPSULATING OR SEALING BODY	80	0.24
ADHESIVE	240	0.3

Fig.7(b)

THE RATIO TO LENGTH OF SEMICONDUCTOR CHIPS

CONDITIONS / ITEM	1	2	3
AMOUNT A OF DISPLACEMENT	0.1	0.2	0.3
THICKNESS B OF CHIP	0.02	0.04	0.06
HALF C OF LENGTH OF DIE PAD	0.7	1	1.3

Fig.8

NUMBER OF EXPERIMENTS	A	B	C	MAXIMUM STRESS (ALL)	MAXIMUM STRESS (EDGE PORTION)
1	1	1	1	9.1	2.6
2	1	2	2	6.9	2.9
3	1	3	3	3	1.8
4	2	1	2	9.2	1.5
5	2	2	3	7	3.1
6	2	3	1	4.6	4.4
7	3	1	3	9.2	1
8	3	2	1	6.4	5.3
9	3	3	2	4.6	3.9

MEASURE OF STRESS : kg/mm²

Fig.9(a)

LEVEL-BY-LEVEL AVERAGE OF MAXIMUM STRESS (ALL) (kg/mm^2)

A1	A2	A3	B1	B2	B3	C1	C2	C3
6.3	6.9	6.7	9.2	6.8	4.1	6.7	6.9	6.4

Fig.9(b)

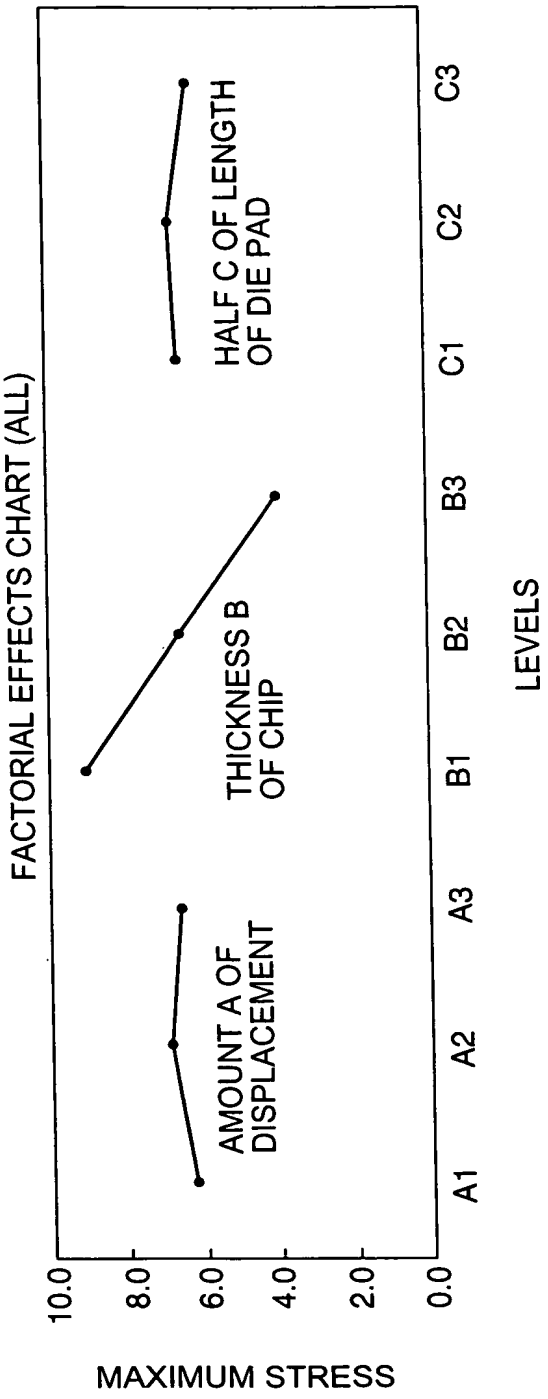

Fig.10(a)

LEVEL-BY-LEVEL AVERAGE OF MAXIMUM STRESS (EDGE PORTION) (kg/mm^2)

A1	A2	A3	B1	B2	B3	C1	C2	C3
2.4	3.0	3.4	1.7	3.8	3.4	4.1	2.8	2.0

Fig.10(b)

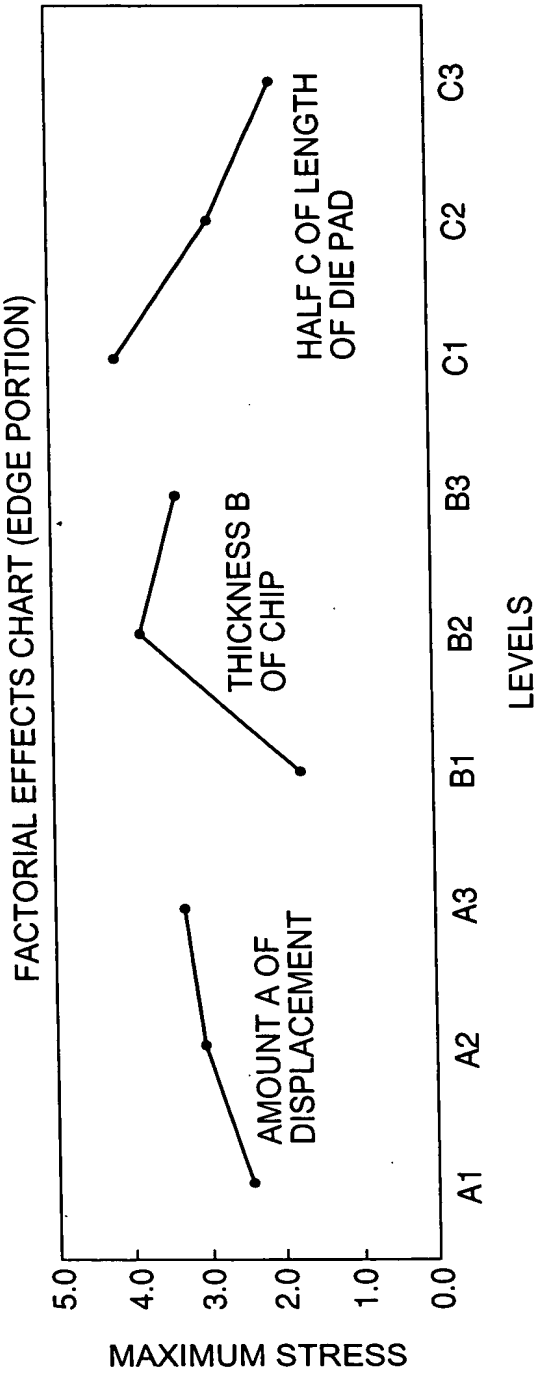

Fig.11

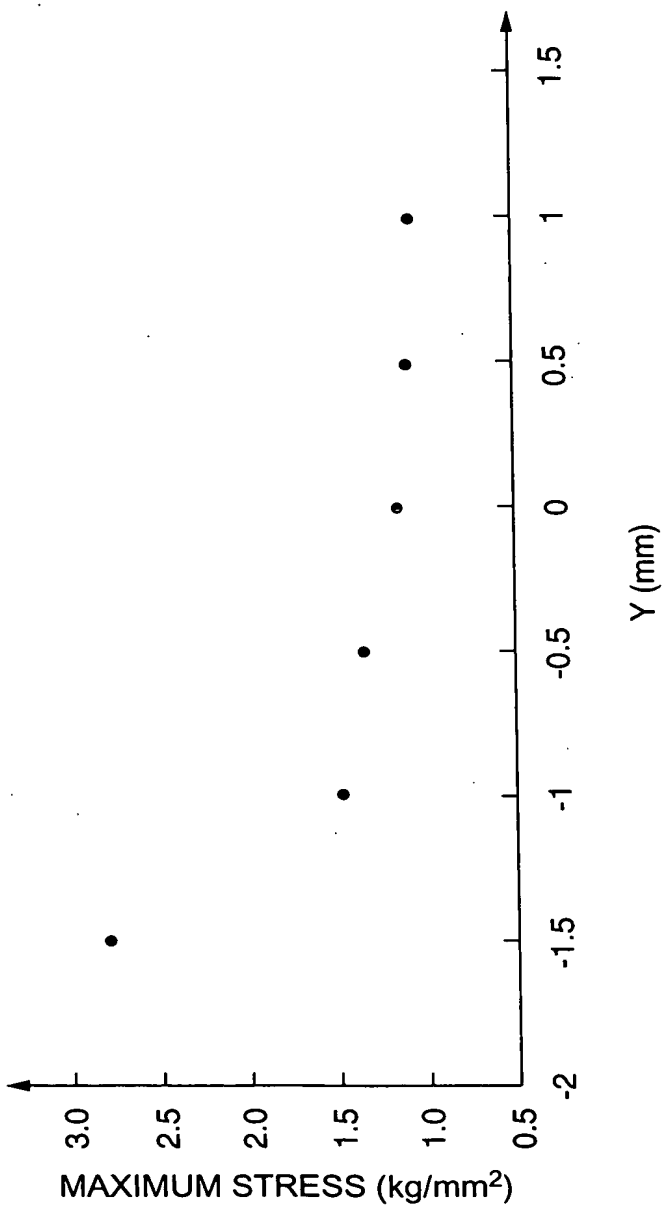

Fig.12(a)

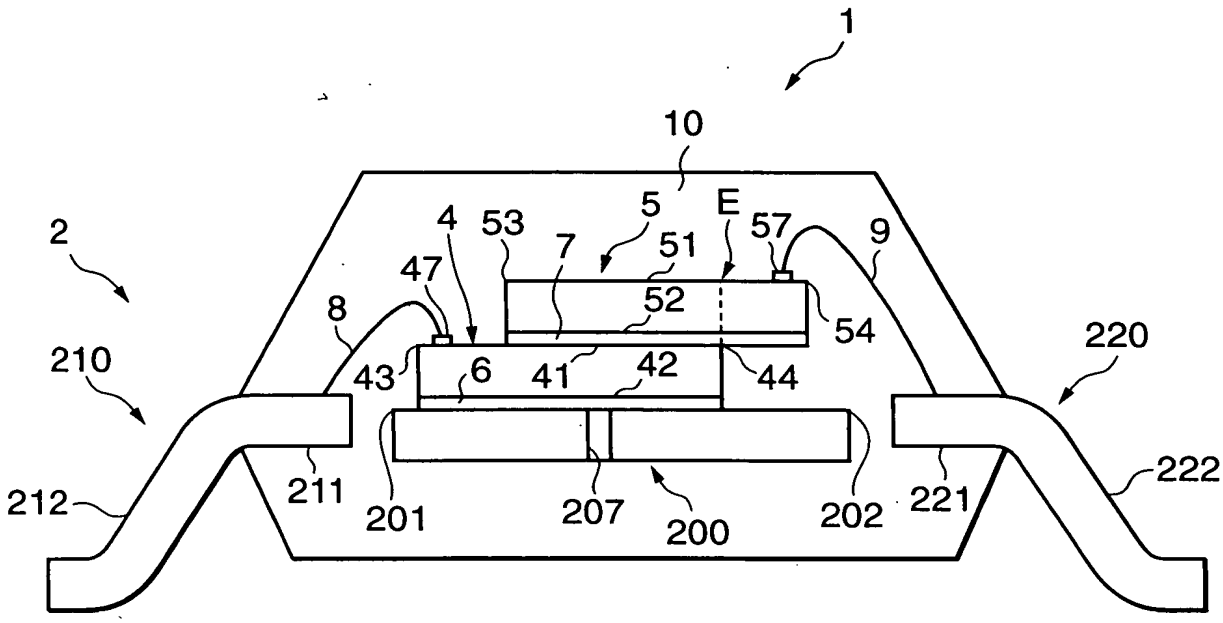

Fig.12(b)

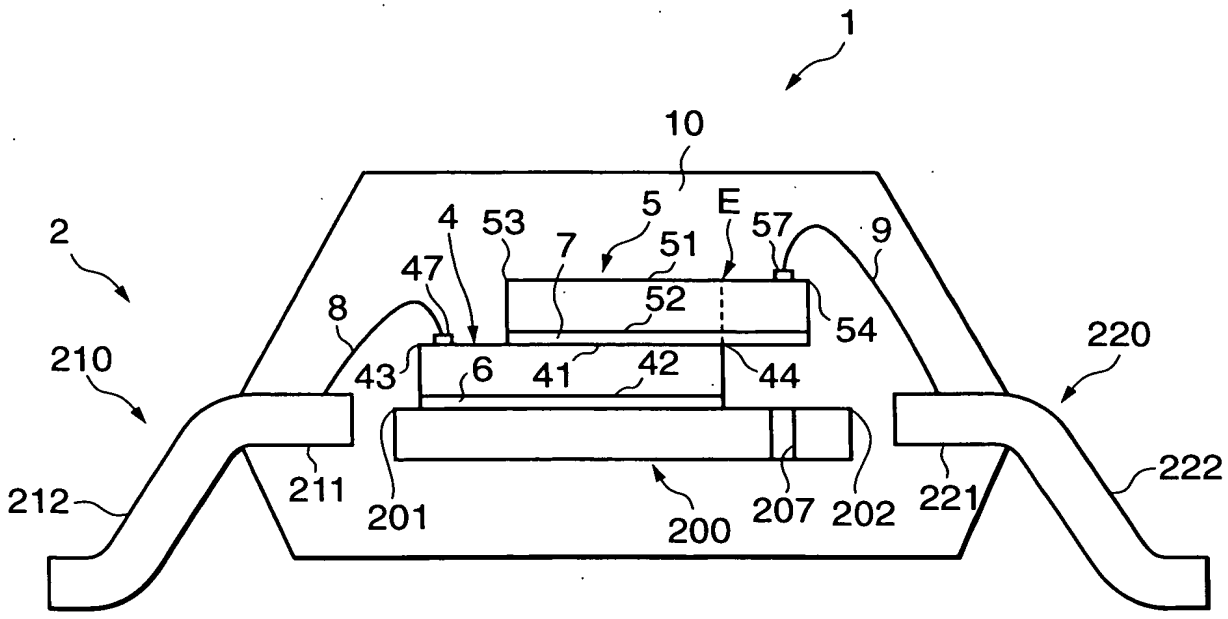

Fig.13

SHAPE OF DIE PAD SECTION	STRESS (kg/mm^2)
SLITS	4.0
NO SLIT	0.1

Fig.14(a)

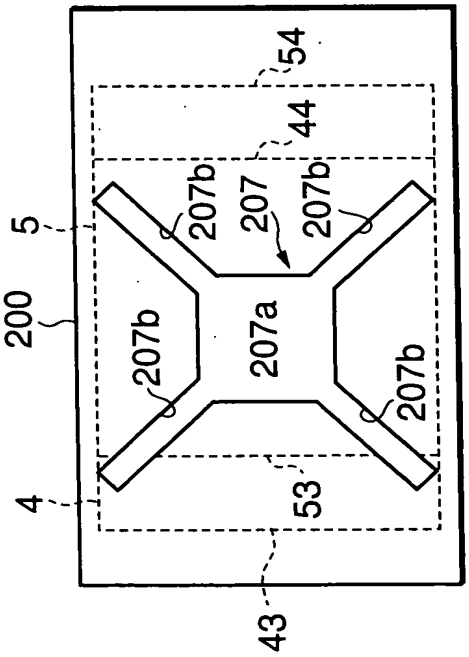

Fig.14(b)

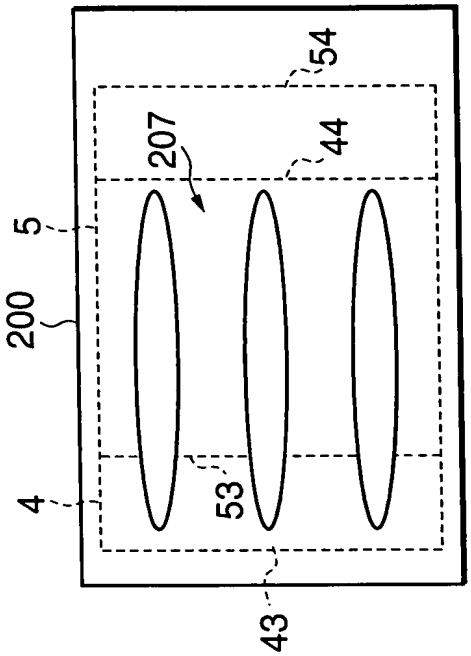

Fig.14(c)

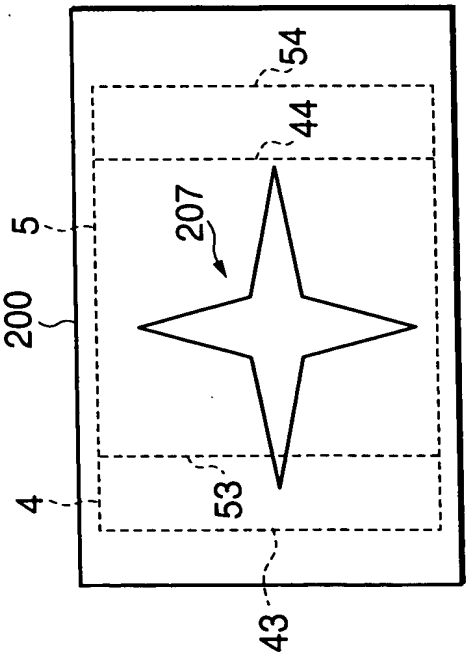

Fig.14(d)

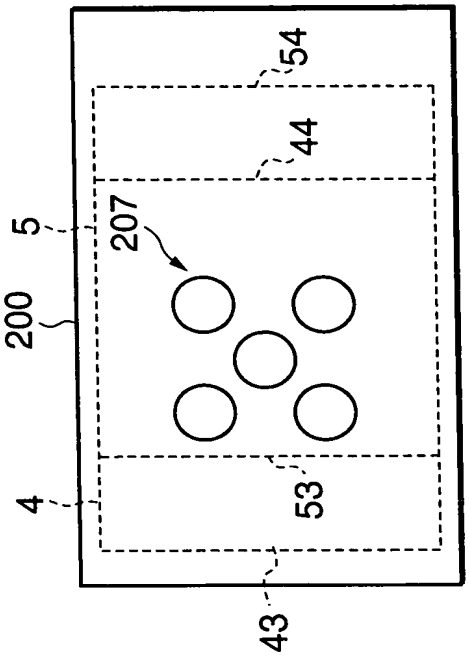

Fig.15

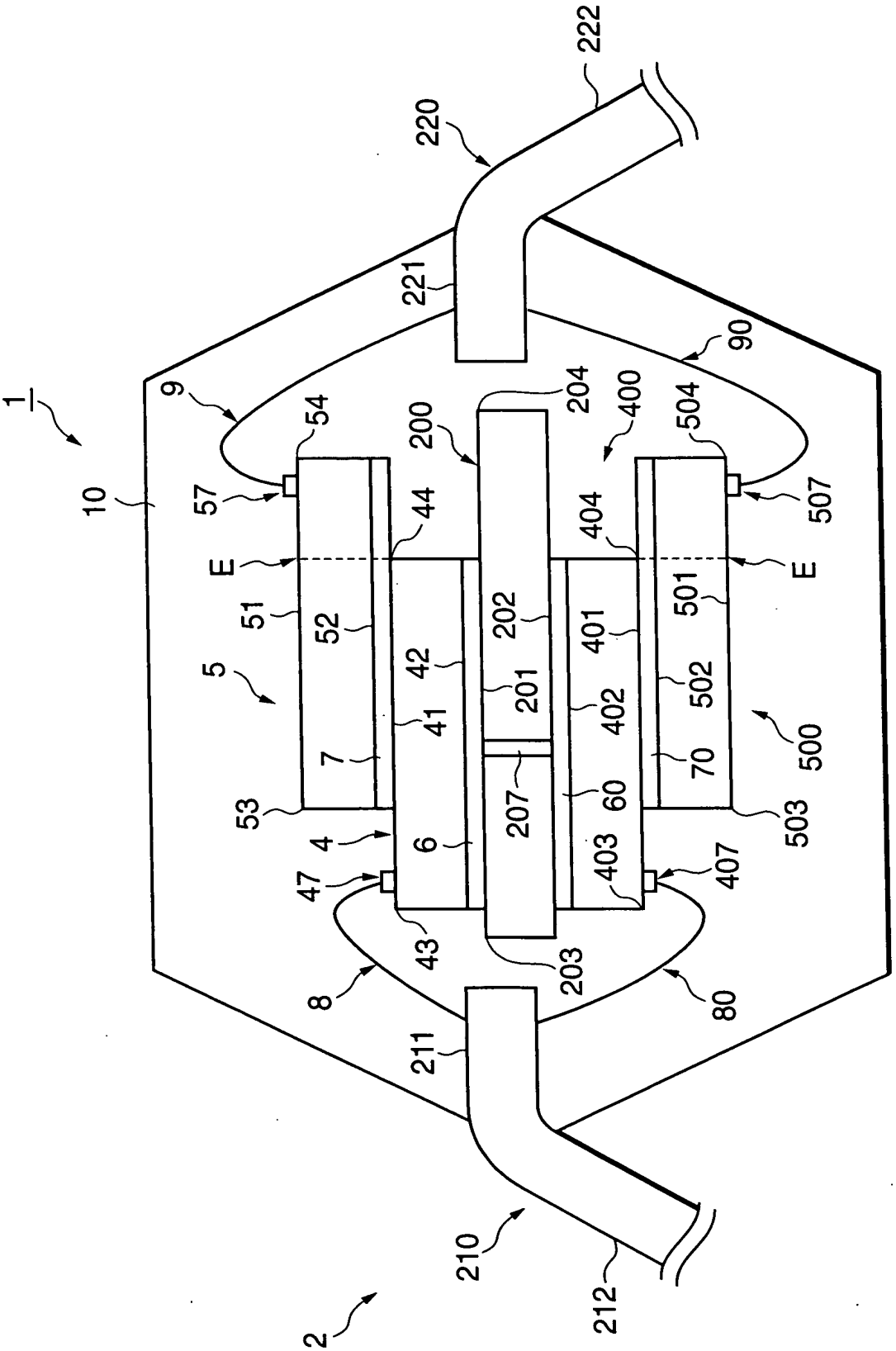
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Fig.16

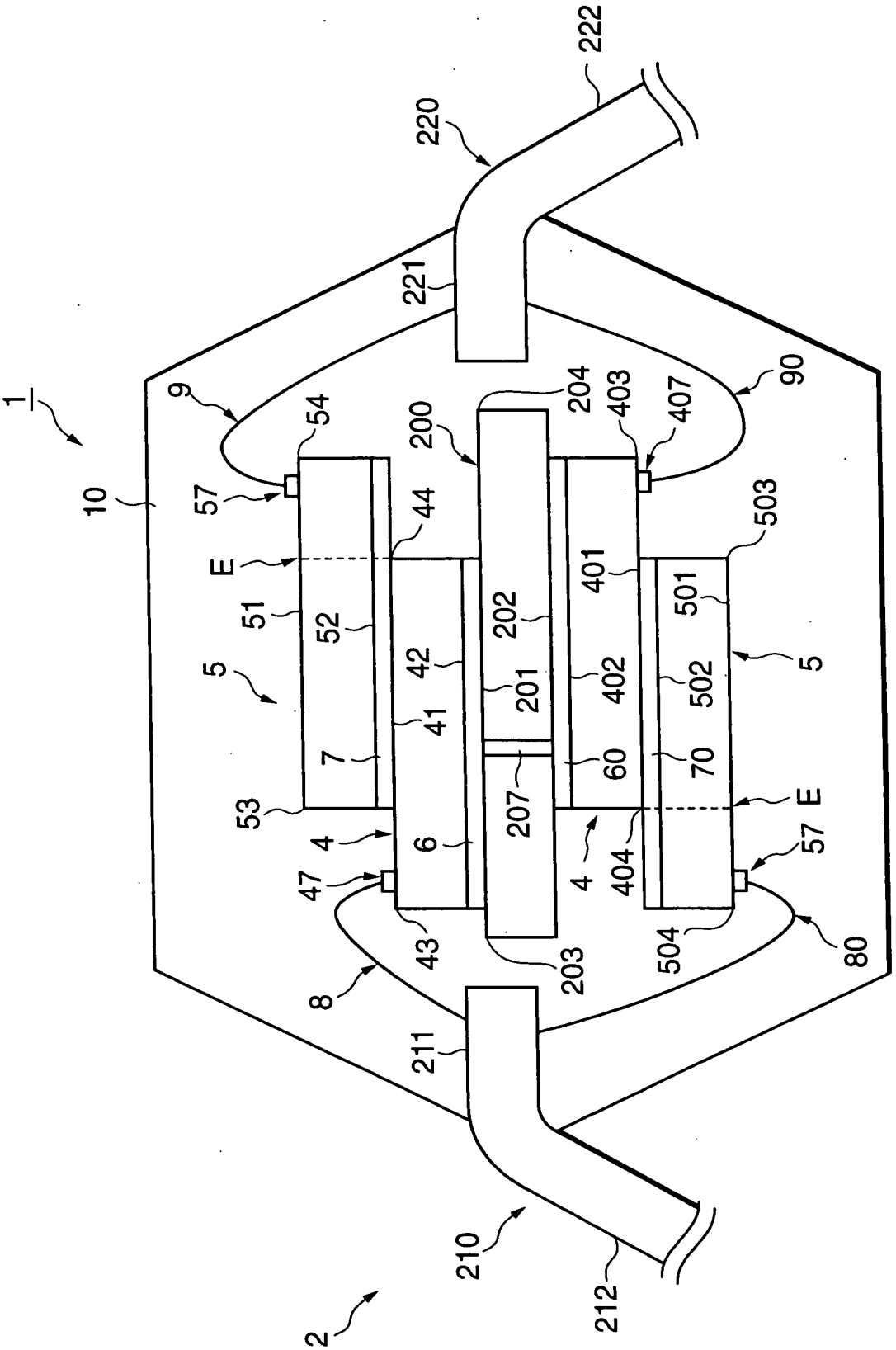
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Fig.17

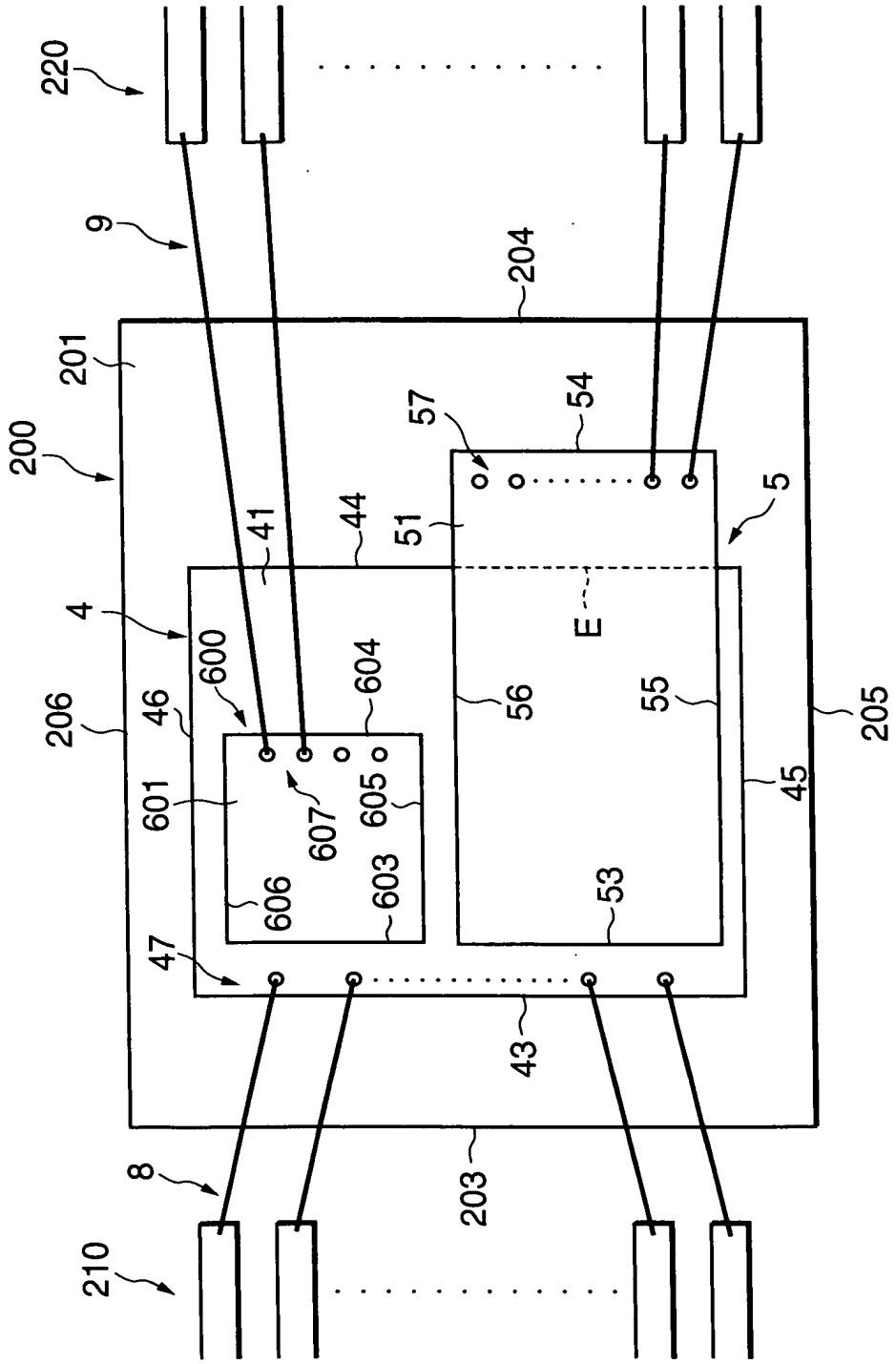
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Fig.18

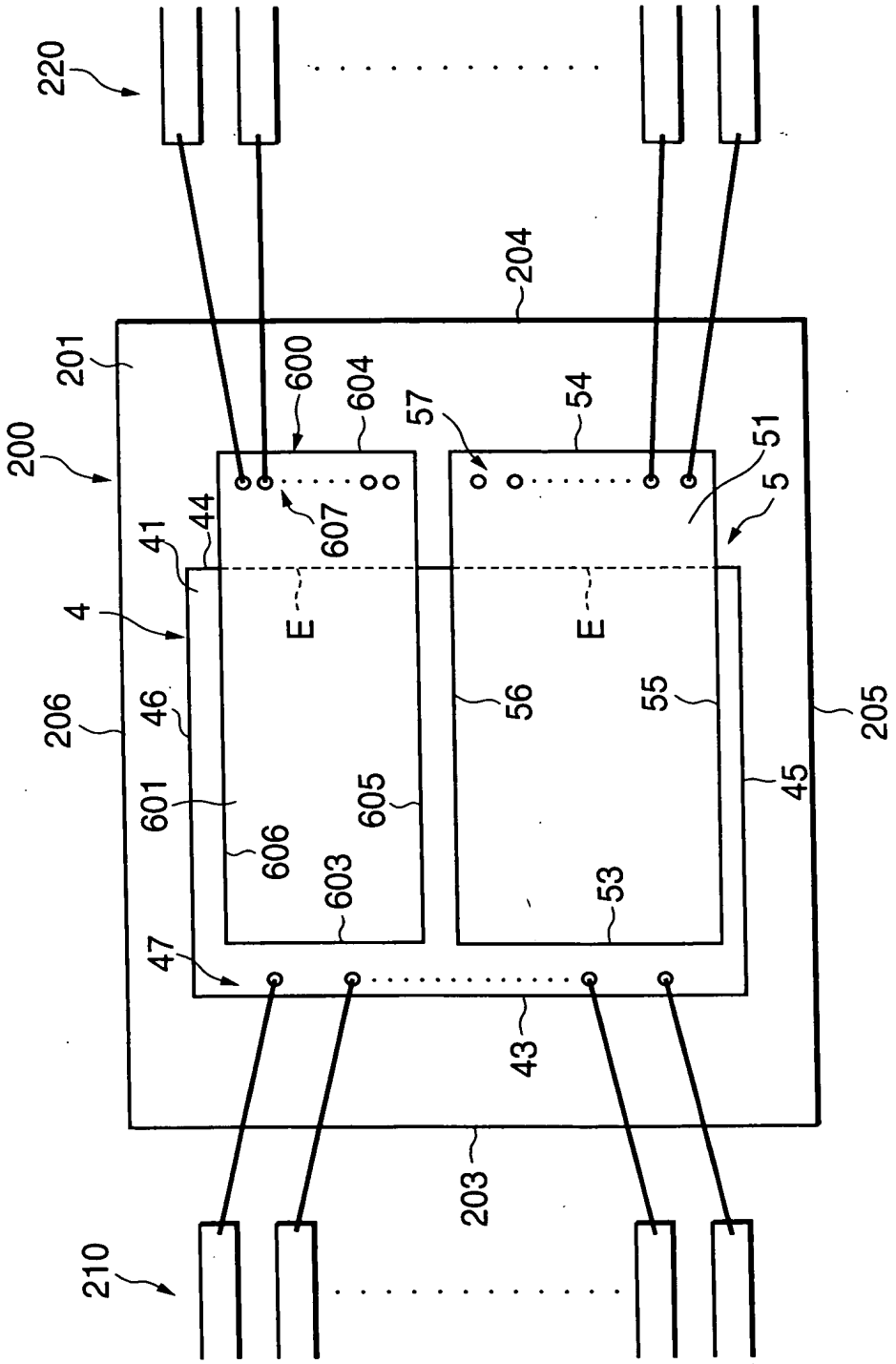
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Fig.19

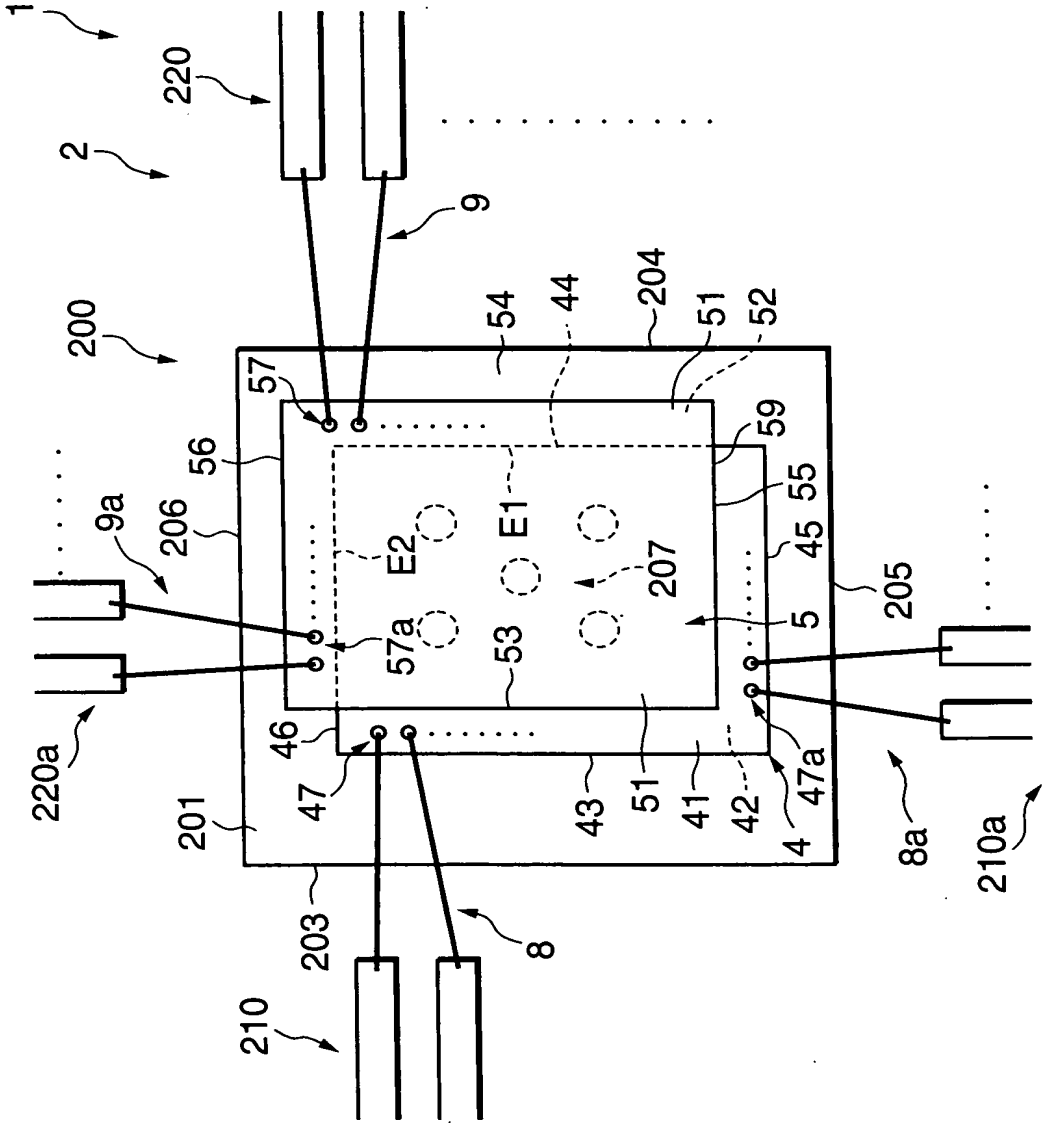
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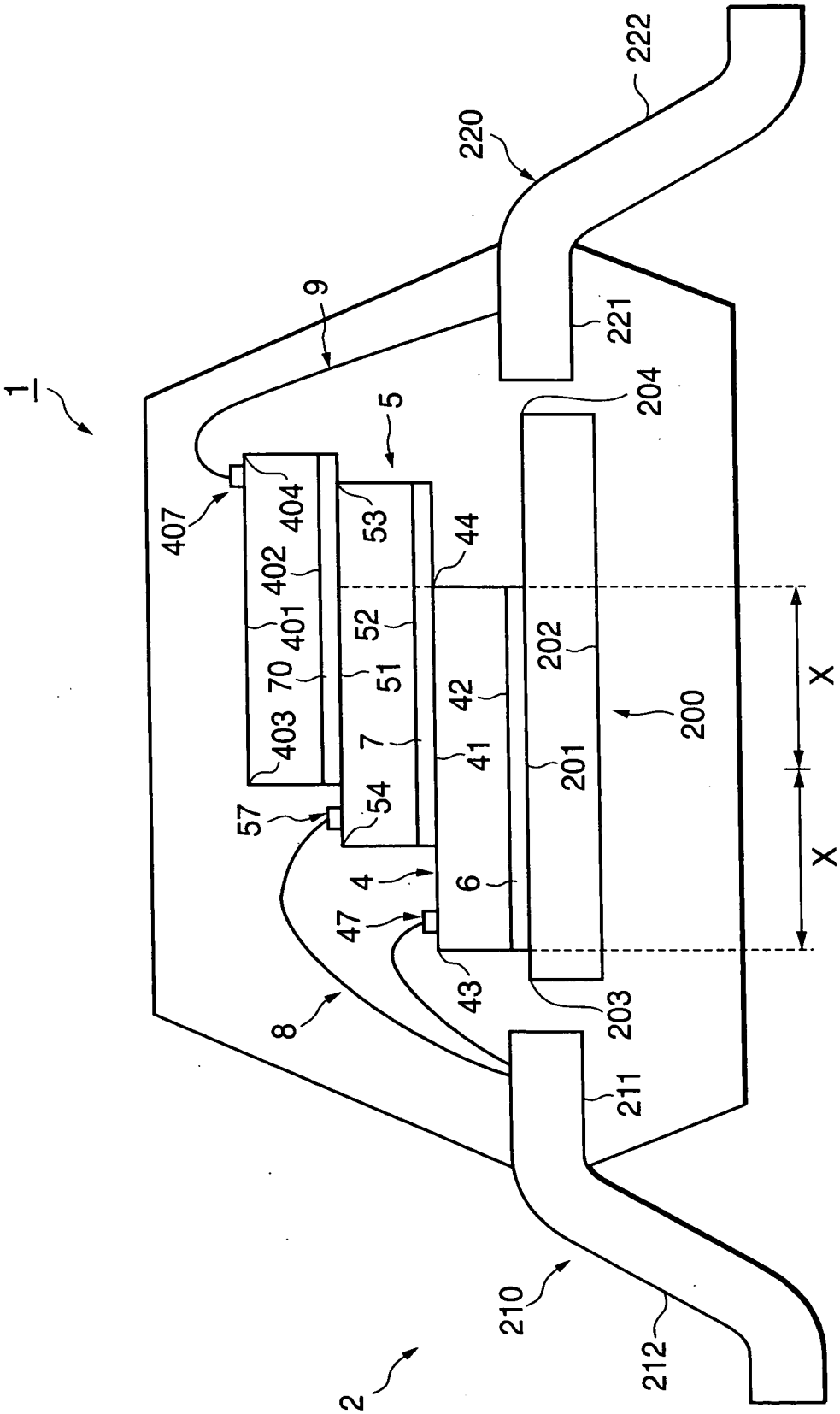
Fig.20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